

### **REMARKS**

Claims 1-29 are pending. Claims 1-5 are under examination. Claims 6-29 were previously withdrawn. Claims 1-5 have been amended. Claim 30 has been added. Support for the amendments and new claim can be found throughout the specification and the claims as filed. For example, support for the amendments to claim 1 can be found in Example 2, Figure 13 and on page 13, lines 10-31. Support for the amendments to claim 2 can be found on page 27, lines 10-26. Support for the amendments to claim 3 can be found in Example 2 and Figure 13. Support for the amendments to claim 4 can be found on page 13, lines 10-31. Support for the amendments to claim 5 can be found page 28, lines 18-30. Support for new claim 30 can be found on page Example 2, Figure 13 and 23, lines 8-20.

The specification has been amended in accordance with the Office's request, which included updating the status of the applications identified in the priority paragraph and updating the status of the U.S. and international patent applications identified throughout the specification. The specification has also been updated to include the correct citation information for journal articles referenced on pages 2 and 18 in accordance with the Office's request. Still further, the original abstract of the disclosure from the PCT specification has been restored in accordance with the Office's request (see WO 2004/051224 A2, last line). Additionally, several typographical errors have been corrected in the priority paragraph and the specification, as indicated above.

Accordingly, these amendments and new claim does not raise an issue of new matter and entry thereof is respectfully requested.

### **Claim Objections**

Claims 4 and 5 stand objected to because of informalities. Applicant has revised claims 4 and 5 to overcome these objections. Withdrawal of these objections is respectfully requested.

### **Rejections Under 35 USC § 112, Second Paragraph**

Claims 1-5 stand rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as

the invention. For items 9-16 identified in the Office Action on pages 4 and 5, Applicants have amended the above claims to overcome these rejections.

In item 17 identified in the Office Action on page 6, the Office asserts that claim 5 is rejected as vague and indefinite in view of step (f). The Office asserts that since claim 1 indicates that the presence of the first population comprising non-cleaved target nucleic acid indicates the presence of methylated target nucleic acids, claim 4 does not require that a plurality of probes only hybridizes with non-cleaved target nucleic acid, and claim 5 is dependent on claim 4, it is unclear why detecting the amplicons can be used as an indication of the presence of methylated target nucleic acid. Applicants respectfully point out that the second region of the probes of claim 4 comprise a detection sequence complementary to the methylated target sequence. The probes will hybridize to a methylated target sequence to form a hybridization complex, as claimed in step (e) of claim 4. In the embodiment of the invention recited in dependent claim 5, step (i), hybridization complexes formed in claim 4, step (e), are contacted with a composition to form amplicons. Detecting the amplicons using steps (i) and (ii) of claim 5 is one way of detecting the presence of hybridization complexes, hence indicating the presence of a methylated target sequence. Thus, Applicants submit that claim 5 is not vague and indefinite when read in the context of parent claim 4.

Reconsideration and withdrawal of the above rejections are respectfully requested.

**CONCLUSION**

In light of the amendments and remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully request a notice to this effect. The Examiner is invited to call the undersigned agent if there are any questions.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

/Micheal L. Hebert/  
Micheal L. Hebert  
Registration No. 63,329

11682 El Camino Real, Suite 400  
San Diego, CA 92130  
Phone: 858.720.3300 MLH:ch  
Facsimile: 858.720.7800  
**Date: July 2, 2010**

**Please recognize our Customer No. 41552  
as our correspondence address.**